(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 3 March 2005 (03.03.2005)

PCT

(10) International Publication Number WO 2005/020332 A3

(51) International Patent Classification7: H01L 51/20, C08F 26/00, 226/00

H01G 9/20,

(21) International Application Number:

PCT/GB2004/003570

(22) International Filing Date: 19 August 2004 (19.08.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0319799.3

22 August 2003 (22.08.2003)

(71) Applicant (for all designated States except US): ITM FUEL CELLS LTD. [GB/GB]; Villa Farm, Jack Haws Lane, Barnack, Stamford, Lincolnshire PE9 3DY (GB).

(72) Inventors; and

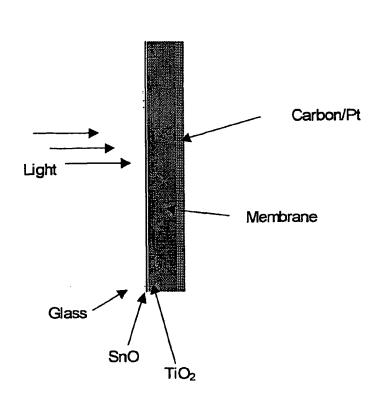
(75) Inventors/Applicants (for US only): HIGHGATE, Donald, James [GB/GB]; The Wilderness, Holmbury Hill Road, Holmbury St Mary, Dorking, Surrey RH5 6NS (GB). HARRISON, Lindsey [GB/GB]; ITM Fuel Cells Ltd., Villa Farm, Jack Haws Lane, Barnack, Stamford, Lincolnshire PE9 3DY (GB). BOURNE, Simon [GB/GB]; ITM Fuel Cells Ltd., Villa Farm, Jack Haws Lane, Barnack, Stamford, Lincolnshire PE9 3DY (GB).

(74) Agent: GILL JENNINGS & EVERY; Broadgate House, 7 Eldon Street, London EC2M 7LH (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: PHOTOVOLTAIC CELL



(57) Abstract: The present invention involves the use of a membrane electrode assembly. i.e. a cathode/membrane/anode assembly capable of transmitting light. A first aspect of the invention is a photovoltaic cell which is a membrane electrode assembly capable of transmitting light. membrane material is preferably a polymer comprising a strongly ionic The assembly preferably group. comprises a catalyst and/or a dve sensitiser. A second aspect of the invention is a method for generating a voltage which comprises irradiating a cell of the invention.



WO 2005/020332 A3



(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 18 August 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.